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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION III  
1650 Arch Street  
Philadelphia, Pennsylvania 19103-2029

**ANNUAL COMPLIANCE REPORT**

**for**

**PUBLIC WATER SYSTEMS**

**in the**

**DISTRICT OF COLUMBIA**

**during**

**CALENDAR YEAR 2009**

## INTRODUCTION

### **The Drinking Water Program: An Overview**

The U.S. Environmental Protection Agency (EPA) established the Public Water System Supervision (PWSS) Program under the authority of the 1974 Safe Drinking Water Act (SDWA). Under the SDWA and the 1986 and 1996 Amendments, EPA sets national limits on contaminant levels in drinking water to ensure that the water is safe for human consumption. These limits are known as Maximum Contaminant Levels (MCLs) and Maximum Residual Disinfectant Levels (MRDLs). For some regulations, EPA establishes treatment techniques in lieu of an MCL to control unacceptable levels of contaminants in water. The Agency also regulates how often public water systems (PWSs) monitor their water for contaminants and report the monitoring results to the States or EPA. Generally, the larger the population served by a water system, the more frequent the monitoring and reporting (M/R) requirements. In addition, EPA requires PWSs to monitor for selected unregulated contaminants to provide data for future regulatory development. Finally, EPA requires PWSs to notify the public when they have violated these regulations. The 1996 Amendments to the SDWA require public notification to include a clear and understandable explanation of the nature of the violation, its potential adverse health effects; steps that the PWS is undertaking to correct the violation and the possibility of alternative water supplies during the violation.

The SDWA applies to the 50 States, the District of Columbia, Indian Lands, Puerto Rico, the Virgin Islands, American Samoa, Guam, and the Commonwealth of the Northern Mariana Islands.

The SDWA allows States and Territories to seek EPA approval to administer their own PWSS Programs. The authority to run a PWSS Program is called primacy. For a state to receive primacy, EPA must determine that the state meets certain requirements laid out in the SDWA and the regulations, including the adoption of drinking water regulations that are at least as stringent as the Federal regulations and a demonstration that they can enforce the program requirements. Of the 56 States and Territories, all but Wyoming and the District of Columbia have primacy. The EPA Regional Offices administer the PWSS Programs within these two jurisdictions. Thus, the EPA Region III Office, in Philadelphia, PA, administers the PWSS Program in the District of Columbia and is responsible for producing this Annual Compliance Report.

The 1986 SDWA Amendments gave Indian Tribes the right to apply for and receive primacy. EPA currently administers PWSS Programs on all Indian lands except the Navaho Nation, which was granted primacy in late 2000.

## Annual State PWS Report

Each quarter, primacy states submit data to the Safe Drinking Water Information System (SDWIS), an automated database maintained by EPA. The data submitted include, but are not limited to, PWS inventory information; the incidence of Maximum Contaminant Level (MCL), Maximum Residual Disinfectant Level (MRDL), monitoring and treatment technique violations; and information on enforcement activity related to these violations. Section 1414(c)(3) of the Safe Drinking Water Act requires states to provide EPA with an annual report of violations of the primary drinking water standards. This report provides the numbers of violations in each of six categories: MCLs, MRDLs, treatment techniques, variances and exemptions, significant monitoring violations, and significant consumer notification violations. The EPA Regional Offices report the information for Wyoming, the District of Columbia, and all Indian Lands but the Navaho Nation. EPA Regional offices also report Federal enforcement actions taken in those locations. Data retrieved from SDWIS form the basis of this report. A summary of calendar year 2009 violations for the District of Columbia is included in Appendix A of this report.

### DEFINITIONS AND SUMMARY OF 2009 DATA

#### Public Water System

A Public Water System (PWS) is defined as a system that provides water via piping or other constructed conveyances for human consumption to at least 15 service connections or serves an average of at least 25 people for at least 60 days each year. There are three types of PWSs. PWSs can be community (such as cities and towns), nontransient noncommunity (such as schools or factories), or transient noncommunity systems (such as rest stops or parks). For this report, when the acronym “PWS” is used, it means systems of all types unless specified in greater detail.

The principal community PWSs in the District of Columbia are the Washington Aqueduct Division of the U.S. Army Corps of Engineers (Aqueduct), which treats the water served to the District, and the District of Columbia Water and Sewer Authority (DC WASA), which distributes and sells water to District of Columbia customers. (*Note: In June 2010, DC WASA announced that the authority would begin doing business as DC Water; however, the full, legal name of the authority has not changed.*)

In addition to the above, three (3) facilities in the District which are owned and operated by the U.S. Navy are consecutive PWSs subject to the requirements of the SDWA. These systems, which purchase water from DC WASA, are: Naval Station Washington (Washington Navy Yard); Naval Station Washington (Anacostia); and Naval Observatory. Bolling Air Force Base (AFB) is also a public water system. These PWSs continued compliance monitoring in calendar year 2009.

In April 2009, Children’s National Medical Center (CNMC) was designated as a regulated public water system. CNMC developed monitoring plans and began compliance monitoring in October 2009.

### **Maximum Contaminant Level**

Under the Safe Drinking Water Act, the EPA sets national limits on contaminant levels in drinking water to ensure that the water is safe for human consumption. These limits are known as Maximum Contaminant Levels (MCLs).

In August 2009, four (4) of the coliform samples from the Washington Navy Yard were positive, exceeding the one (1) permissible positive sample at a PWS of this size. This constituted a violation of the monthly MCL for coliform bacteria. No *E. coli* or fecal bacteria were detected in these samples; thus, the situation did not present an immediate (acute) health threat to consumers of the water. The PWS believed that improper sample handling contributed to the positive samples; however, invalidation was not requested. Appropriate public notification for this violation was performed in September 2009.

During calendar year 2009, no MCL violations occurred at any of the other PWSs in the District of Columbia.

### **Maximum Residual Disinfectant Level**

The EPA sets national limits on residual disinfectant levels in drinking water to reduce the risk of exposure to disinfection byproducts formed when public water systems add chemical disinfectant for either primary disinfection or for secondary disinfection to provide a residual disinfectant in the distribution system. These levels are known as Maximum Residual Disinfectant Levels (MRDLs). During calendar year 2009, no MRDL violations occurred at any PWS in the District of Columbia.

### **Treatment Techniques**

For some regulations, the EPA establishes treatment techniques (TTs) in lieu of an MCL to control unacceptable levels of certain contaminants. For example, treatment techniques have been established for viruses, some bacteria, and turbidity. In addition, the Lead and Copper Rule (LCR) specifies two types of activities - providing educational materials on lead to water system customers and replacement of lead water service lines - which must be performed by systems that exceed the lead action level. These activities are considered treatment technique requirements under the LCR.

No treatment technique violations occurred at any of the PWSs in the District of Columbia during calendar year 2009.

### **Variances and Exemptions**

Although variances and exemptions to specific requirements under the Safe Drinking Water Act Amendments of 1996 may be granted under certain circumstances, EPA has never issued any variances or exemptions to the public water systems in the District of Columbia.

## **Monitoring**

A PWS is required to monitor and verify that the levels of contaminants present in the water do not exceed the MCL or MRDL or violate a treatment technique. If a PWS fails to have its water tested as required, or fails to report test results correctly to the primacy agency, a monitoring violation occurs.

Monitoring for most chemical contaminants is done at the point(s) where water from the water treatment plant(s) enters the water storage and distribution system. The exceptions are bacteriological contaminants, disinfection byproducts, and lead and copper which are monitored at specific locations in the distribution system.

The January 2009 Total Coliform Rule monitoring reports for the three Navy water systems were postmarked February 11, 2009, 1 day late. The June 2009 Total Coliform Rule monitoring report for Bolling Air Force Base was received July 13, 2009, 3 days late. Although monitoring was conducted properly, these actions constitute minor reporting violations and are identified separately in Appendix A of this report.

During calendar year 2009, no violations of the monitoring or reporting requirements of the National Primary Drinking Water Regulations (NPDWRs) occurred at any of the other PWSs in the District of Columbia.

### **Significant Monitoring Violations**

For this report, significant monitoring violations are generally defined as any significant monitoring violation that occurred during the calendar year of the compliance report. A significant monitoring violation, with rare exceptions, occurs when no samples were taken or no results were reported during a compliance period. During calendar year 2009, no significant monitoring violations occurred at any PWS in the District of Columbia.

### **Consumer Notification**

Every Community Water System is required by the Consumer Confidence Report (CCR) Rule to deliver to its customers a brief annual water quality report. This report includes some educational material, and provides information on the source water, the levels of any detected contaminants, and compliance with drinking water regulations. The Public Notification (PN) Rule requires a PWS that has incurred a violation, or violations, of the drinking water regulations to notify its customers about the violation(s) and to provide health advisory information.

During calendar year 2009, no consumer notification violations occurred at any of the PWSs in the District of Columbia.

## DISTRICT OF COLUMBIA INFORMATION

### Public Water Systems in the District of Columbia

There are two principal public water systems in the District of Columbia: 1) the Washington Aqueduct Division of the U.S. Army Corps of Engineers (the Aqueduct); and, 2) the District of Columbia Water and Sewer Authority (DC WASA). The Aqueduct owns and operates two water intakes on the Potomac River in Maryland, two water treatment plants in the District of Columbia, and three finished water storage reservoirs. The treatment plants, Dalecarlia and McMillan, can produce up to 340 million gallons per day (MGD) of potable water for the metropolitan Washington area.

The Aqueduct is a water wholesaler, and as such, has no distribution system of its own. Its primary customer is DC WASA, which owns and operates eight finished water storage facilities and the water distribution system within the District. DCWASA does not further treat the water in any way. (It should be noted that prior to the creation of DC WASA on October 1, 1996, the water distribution system was owned and operated by the former Water and Sewer Utility Administration (WASUA) which was part of the District of Columbia Department of Public Works.)

Three (3) facilities in the District which are owned and operated by the U.S. Navy are consecutive PWSs subject to the requirements of the SDWA. These systems, which purchase all of their water from DC WASA, are: Naval Station Washington (Washington Navy Yard); Naval Station Washington (Anacostia); and Naval Observatory. Bolling Air Force Base also meets the definition of a PWS. None of the Navy or Air Force facilities provides additional water treatment. Children's National Medical Center meets the definition of a PWS, as it additionally treats its potable water.

In addition to DC WASA, the Aqueduct supplies water to three customer PWSs in the Commonwealth of Virginia: Arlington County, the City of Falls Church, and Ronald Reagan Washington National Airport. These customer water systems are regulated by the Virginia Department of Health which has primacy for implementation of the PWSS Program in the Commonwealth.

For reference in SDWIS, the water systems are listed below along with their PWS identification numbers:

DC0000001	Washington Aqueduct
DC0000002	District of Columbia Water and Sewer Authority ( <i>Note: In June 2010, DC WASA announced that the authority would begin doing business as DC Water; however, the full, legal name of the authority has not changed.</i> )
DC0000003	Naval Station Washington (Washington Navy Yard)
DC0000004	Naval Station Washington (Anacostia)
DC0000005	Naval Observatory



DC0000007	Bolling Air Force Base
DC0000008	Children's National Medical Center
VA6013010	Arlington County Department of Public Works
VA6013080	Ronald Reagan Washington National Airport
VA6610100	City of Falls Church Department of Public Utilities

The Aqueduct produces an average of 180 MGD of drinking water for the water systems listed above which have a total population of about one million. The District, with a total population of approximately 600,000, consumes about 75 percent of the Aqueduct's production. Although the District has about 60 percent of the population served by the Aqueduct, it uses more water because it has a large transient population of commuters and tourists.

Because the Aqueduct and DC WASA have individual responsibilities for complying with the SDWA, both systems need to work together to ensure that the District's drinking water meets federal standards. The Aqueduct is responsible for compliance with all of the regulations which pertain to water treatment such as filtration, disinfection and chemical contaminant removal, and corrosion control. DC WASA is responsible for the regulations for total coliform bacteria, lead and copper, and disinfection byproducts, which are applicable to the distribution system. The water treatment techniques applied by the Aqueduct directly affect the quality of the water in DC WASA's system. The distribution system operation and maintenance activities conducted by DC WASA also directly affect the quality of water delivered to its customers.

The Aqueduct provides significant formal and informal assistance to DC WASA in complying with the monitoring and reporting requirements of the SDWA. The Aqueduct collects and provides analytical services for all of the required distribution system entry point samples for organic and inorganic chemical contaminants, which satisfies the requirements for itself as well as its customer PWSs. In addition, the Aqueduct provides contractual laboratory services for DC WASA, analyzing all of the bacteriological and disinfection byproduct samples collected from DC WASA's distribution system. Responsibility for compliance with lead and copper monitoring is split between the Aqueduct and DC WASA. DC WASA arranges for the collection of lead and copper samples at customers' taps and the Aqueduct laboratory performs the analyses as provided by its contract with DC WASA. The Aqueduct and DC WASA staff also collect and analyze the distribution system samples required for the assessment of optimal corrosion control treatment. On an annual basis, the Aqueduct's laboratory collects and analyzes over 35,000 samples for more than 125 parameters.

The Aqueduct compiles the results of the analyses of compliance samples. The Aqueduct includes this data in the monthly monitoring report it submits to EPA Region III. Other data is forwarded to DC WASA for use in preparing their monitoring reports, which are also submitted to EPA Region III.

### **Lead and Copper Rule Compliance Actions**

A discussion of DC WASA's Lead and Copper Rule (LCR) compliance actions for calendar year 2009 is provided below. For additional information on DC WASA's compliance



with the LCR, please see the Annual Compliance Reports for the District of Columbia for years 2004 through 2008. More information and links to additional resources are also available on the EPA website: [www.epa.gov/dclead](http://www.epa.gov/dclead).

### Lead and Copper Tap Sampling

After exceeding the lead action level (AL) from 2002 through 2004, DC WASA conducted full monitoring for lead and copper at customers' taps from 2005 through 2008. DC WASA met the lead AL of 0.015 mg/L for all monitoring periods during this time. DC WASA again performed full monitoring for lead and copper in 2009, meeting the lead action level for both monitoring periods (0.006 mg/L for the January 1 – June 30 monitoring period; 0.007 mg/L for the July 1 – December 31 monitoring period). DC WASA did not exceed the copper AL of 1.3 mg/L in any of these monitoring periods. The copper results for calendar year 2009 were 0.090 mg/L for the January 1 – June 30 monitoring period and 0.086 mg/L for the July 1 – December 31 monitoring period.

### **Corrosion Control Treatment**

In February 2004, EPA Region III convened a Technical Expert Working Group (TEWG), comprising representatives from DC WASA, the Washington Aqueduct, EPA, the Department of Health and the D.C. Department of the Environment, and the Centers for Disease Control and Prevention, to coordinate research and communications. This working group continues to meet quarterly to discuss research on lead corrosion and other District drinking water quality issues. In April 2004, the TEWG recommended that the Aqueduct implement the application of an orthophosphate corrosion inhibitor as a method to reduce the drinking water lead levels. The Aqueduct began adding an orthophosphate corrosion inhibitor (phosphoric acid) to the entire system in August 2004 and continues this treatment today. In 2006, EPA approved application of an orthophosphate corrosion inhibitor as the final optimal corrosion control treatment. No changes to the corrosion control treatment have been made since 2006.

### **PWSS Program Activities in the District of Columbia**

EPA Region III's Water Protection Division works closely with the Washington Aqueduct, DC WASA, the Navy facilities, Bolling Air Force Base, and Children's National Medical Center in the implementation of the PWSS Program in the District. The Region has provided, and in some cases continues to provide, services to the District such as the following:

- Training for water treatment plant and distribution system operators;
- Training for distribution system maintenance and repair personnel;
- Sanitary surveys of the water treatment, storage and distribution systems;
- Sanitary surveys of several large water users in the District;
- Drinking water survey of day care centers in the District; and
- Assistance to the DC government in conducting a source water assessment of the Potomac River.

Specifically, during calendar year 2009, Region III:

- Developed and provided comprehensive monitoring guidance and other resources, including emergency preparedness and response resources, to all public water systems in the District;
- Issued notices of non-compliance for the late reporting and MCL violations described previously (see: “Definitions and Summary of 2009 Data”);
- Continued to assist the Aqueduct and DC WASA in their research efforts on previously elevated levels of lead in drinking water;
- Reviewed and approved Stage 2 Disinfectants and Disinfection Byproducts Rule monitoring plans for systems required to perform Initial Distribution System Evaluations;
- Reviewed changes to compliance monitoring locations;
- With contractors, performed a sanitary survey of the Washington Aqueduct’s two water treatment plants;
- Reviewed and approved two water treatment changes, planned for 2010, at the Washington Aqueduct’s treatment plants;
- Performed significant compliance assistance to Children’s National Medical Center to aid the PWS in understanding requirements of regulated public water systems and to help the facility prepare monitoring plans;
- Reviewed drafts of the Consumer Confidence Reports (CCRs) produced by DC WASA, Bolling Air Force Base, and the Navy and reviewed draft public notices as needed throughout the year, ensuring that required language was included and the public was appropriately informed;
- Continued to work with the Aqueduct, DC WASA, and the Virginia customers concerning water system security issues;
- Remained committed to source water protection efforts through continued participation with the Potomac River Basin Drinking Water Source Protection Partnership.

Additional information about the PWSS Program in the District, or extra copies of this report may be obtained by contacting:

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Copies of the Annual Compliance Reports for Public Water Systems in the District of Columbia may also be found on the web at:

<http://www.epa.gov/reg3wapd/drinkingwater/DCdrinking/index.htm>

### Appendix A: Calendar Year 2009 Violation Summary for the District of Columbia

Contaminant or rule	Violation Type											
	MCLs			Monitoring <sup>‡</sup>			Treatment Technique			Consumer Notification		
	# of viols <sup>a</sup>	# of RTC viols <sup>b</sup>	# of PWS in viol <sup>c</sup>	# of viols	# of RTC viols	# of PWS in viol	# of viols	# of RTC viols	# of PWS in viol	# of viols	# of RTC viols	# of PWS in viol
IOC	0	0	0	0	0	0						
RAD	0	0	0	0	0	0						
SOC	0	0	0	0	0	0						
VOC	0	0	0	0	0	0						
TCR	1	1	1	0	0	0						
LCR				0	0	0	0	0	0			
SWTR				0	0	0	0	0	0			
DBP	0	0	0	0	0	0	0	0	0			
CCR											0	0
PN											0	0
Grand totals*:	1	1	1	0	0	0	0	0	0 0	0	0	0

A shaded box indicates that the violation type is not applicable to a contaminant or rule. 0

<sup>‡</sup> Only major monitoring violations are included in this table. Minor monitoring and reporting violations are identified separately on the next pages.

\* A single PWS may have violations for multiple contaminants or rules; therefore, the grand total of “# of PWS in viol” may not equal the sum of values in that column.

#### Notes:

a: “# of viols” refers to the number of violations of a specific type for each rule during calendar year 2009

b: “# of RTC viols” refers to the number of violations that have been returned to compliance as of the end of calendar year 2009

c: “# of PWS in viol” refers to the number of public water systems in the District of Columbia which had a specific type of violation for a given rule during calendar year 2009

## Details by PWS ID

<b>PWS ID</b>	DC0000003				
<b>System name</b>	Naval Station Washington (Washington Navy Yard)				
<b>Population</b>	11,000				
<b>Contaminant</b>	<b>Violation type (SDWIS code)</b>	<b>Compliance period begin date</b>	<b>Compliance period end date</b>	<b>Violation ID</b>	
3100	Coliform (TCR)	22	8/1/2009	8/31/2009	#0900004

## Annual Compliance Report totals for calendar year 2009

Total number of regulated systems	7
Total number of systems with violations	1
Total number of violations	1

*Minor Monitoring and Reporting Violations not included in Annual Compliance Report totals*

<b>PWS ID</b>	DC0000003				
<b>System name</b>	Naval Station Washington (Washington Navy Yard)				
<b>Population</b>	11,000				
<b>Contaminant</b>	<b>Violation type (SDWIS code)</b>	<b>Compliance period begin date</b>	<b>Compliance period end date</b>	<b>Violation ID</b>	
3100	Coliform (TCR)	24	1/1/2009	1/31/2009	#0900003

<b>PWS ID</b>	DC0000004				
<b>System name</b>	Naval Station Washington (Anacostia)				
<b>Population</b>	3,200				
<b>Contaminant</b>	<b>Violation type (SDWIS code)</b>	<b>Compliance period begin date</b>	<b>Compliance period end date</b>	<b>Violation ID</b>	
3100	Coliform (TCR)	24	1/1/2009	1/31/2009	#0900003

<b>PWS ID</b>	DC0000005				
<b>System name</b>	Naval Observatory				
<b>Population</b>	370				
<b>Contaminant</b>	<b>Violation type (SDWIS code)</b>	<b>Compliance period begin date</b>	<b>Compliance period end date</b>	<b>Violation ID</b>	
3100	Coliform (TCR)	24	1/1/2009	1/31/2009	#0900003

<b>PWS ID</b>	DC0000007				
<b>System name</b>	Bolling Air Force Base				
<b>Population</b>	11,000				
<b>Contaminant</b>	<b>Violation type (SDWIS code)</b>	<b>Compliance period begin date</b>	<b>Compliance period end date</b>	<b>Violation ID</b>	
3100	Coliform (TCR)	24	6/1/2009	6/30/2009	#0900009

## Definitions

### *Violation type definitions*

**Violation:** A failure to meet any state or federal drinking water regulation.

**MCL:** Maximum Contaminant Level – The highest amount of a contaminant that EPA allows in drinking water. MCLs ensure that drinking water does not pose either a short-term or long-term health risk.

**Monitoring:** EPA specifies which water testing methods the water systems must use, and sets schedules for the frequency of testing. A water system that does not follow EPA's schedule or methodology is in violation [40 CFR 141]. States must report monitoring violations that are significant as determined by the EPA Administrator and in consultation with the States.

**Treatment Technique:** A required process intended to reduce the level of a contaminant in drinking water

**Consumer Notification:** A required process for providing information to customers of a public water system

**SDWIS Code:** Specific numeric codes from the Safe Drinking Water Information System (SDWIS) have been assigned to each violation type included in this report. The violations to be reported include exceeding contaminant MCLs, failure to comply with treatment requirements, and failure to meet monitoring and reporting requirements. Four-digit SDWIS Contaminant Codes have also been included in the chart for specific contaminants.

*Contaminant or rule definitions*

**CCR:** Consumer Confidence Report – The annual report on water quality which must be distributed to customers of a community water system. SDWIS Violation Code 71 indicates a failure to provide this report.

**DBP:** Disinfection Byproduct – Two groups of disinfection byproducts are regulated by EPA. SDWIS Violation Code 27 indicates a monitoring violation.

*TTHM:* Total Trihalomethanes – SDWIS Contaminant Code 2950 is the sum of four (4) regulated trihalomethane species.

*HAA5:* Haloacetic Acids (sum of 5) – SDWIS Contaminant Code 2456 is the sum of five (5) regulated haloacetic acids.

**IOC:** Inorganic Contaminant - Non-carbon-based compounds such as metals, nitrates, and asbestos. These contaminants are naturally-occurring in some water, but can get into water through farming, chemical manufacturing, and other human activities. EPA has established MCLs for 15 inorganic contaminants [40 CFR 141.62].

**LCR:** Lead and Copper Rule - This rule established national limits on lead and copper in drinking water [40 CFR 141.80-91]. Lead and copper corrosion pose various health risks when ingested at any level, and can enter drinking water from household pipes and plumbing fixtures. States report violations of the Lead and Copper Rule in the following categories:

*Initial lead and copper tap M/R:* SDWIS Violation Code 51 indicates that a system did not meet initial lead and copper testing requirements, or failed to report the results of those tests to the State.

*Follow-up or routine lead and copper tap M/R:* SDWIS Violation Code 52 indicates that a system did not meet follow-up or routine lead and copper tap testing requirements, or failed to report the results.

*Treatment installation:* SDWIS Violation Codes 58 AND 62 indicate a failure to install optimal corrosion control treatment system (58) or source water treatment system (62) which would reduce lead and copper levels in water at the tap. [One number is to be reported for the sum of violations in these two categories].

*Public education:* SDWIS Violation Code 65 shows that a system did not provide required public education about reducing or avoiding lead intake from water.



**LSLR:** Lead Service Line Replacement – SDWIS Violation Code 64 indicates that a system required to replace lead service lines did not meet the lead service line replacement requirements of the Lead and Copper Rule.

**PN:** Public Notification - Notification that water systems must provide to their customers upon discovering any violation of a contaminant standard.

**RAD:** Radionuclides - Radioactive particles which can occur naturally in water or result from human activity. EPA has set legal limits on the following types of radionuclides: radium-226, radium-228, uranium, gross alpha, and beta particle/photon radioactivity [40 CFR 141.66]. Violations for these contaminants are to be reported using the following categories:

*Gross alpha:* SDWIS Contaminant Code 4000 for alpha radiation above MCL of 15 picocuries/liter (pCi/L). Gross alpha includes radium-226 but excludes radon and uranium.

*Combined radium-226 and radium-228:* SDWIS Contaminant Code 4010 for combined radiation from these two isotopes above MCL of 5 pCi/L.

*Uranium:* SDWIS Contaminant Code 4006 for uranium levels above MCL of 30 micrograms per liter (µg/L).

*Gross beta:* SDWIS Contaminant Code 4101 for beta particle and photon radioactivity from man-made radionuclides above 4 millirem/year.

**SOC or VOC:** Synthetic Organic Contaminant or Volatile Organic Contaminant - Organic contaminants are carbon-based compounds, such as industrial solvents and pesticides. These contaminants generally get into water through runoff from cropland or discharge from factories. EPA has set legal limits on 54 organic contaminants that are to be reported [40 CFR 141.61].

**SWTR:** Surface Water Treatment Rule - Establishes criteria under which water systems supplied by surface water sources, or ground water sources under the direct influence of surface water, must filter and disinfect their water [40 CFR 141, Subpart H]. Violations of the Surface Water Treatment Rule are to be reported for the following categories:

*Monitoring, routine/repeat (for filtered systems):* SDWIS Violation Code 36 indicates a system's failure to carry out required tests, or to report the results of those tests.

*Treatment techniques (for filtered systems):* SDWIS Violation Code 41 shows a system's failure to properly treat its water.

*Monitoring, routine/repeat (for unfiltered systems):* SDWIS Violation Code 31 indicates a system's failure to carry out required water tests, or to report the results of those tests.

*Failure to filter (for unfiltered systems):* SDWIS Violation Code 42 shows a system's failure to properly treat its water. Data for this violation code will be supplied to the States by EPA.

**TCR:** Total Coliform Rule - Establishes regulations for microbiological contaminants in drinking water. These contaminants can cause short-term health problems. If no samples are collected during the one month compliance period, a significant monitoring violation occurs. States are to report the following categories of violations:

*Acute MCL violation:* SDWIS Violation Code 21 indicates that the system found fecal coliform or *E. coli*, potentially harmful bacteria, in its water, thereby violating the rule.

*Non-acute MCL violation:* SDWIS Violation Code 22 indicates that the system found total coliform in samples of its water at a frequency or at a level that violates the rule. For systems collecting fewer than 40 samples per month, more than one positive sample for total coliform is a violation. For systems collecting 40 or more samples per month, more than 5% of the samples positive for total coliform is a violation.

*Major routine and follow-up monitoring:* SDWIS Violation Codes 23 AND 25 show that a system did not perform any monitoring. [One number is to be reported for the sum of violations in these two categories.]

*Sanitary Survey:* SDWIS Violation Code 28 indicates a major monitoring violation if a system fails to collect 5 routine monthly samples if sanitary survey is not performed.